

AMENDMENT UNDER 37 C.F.R. § 1.114(c)  
U.S. Application No.: 10/530,174

Attorney Docket No.: Q87222

### **REMARKS**

#### **I. Status of Application**

By the present Amendment, claims 15, 16 and 18 have been canceled without prejudice or disclaimer and new claims 19-20 have been added. Claims 1-14, 17 and 19-20 are all the claims pending in the application. Claims 1-16 and 18 have been rejected.

#### **II. Claim Rejections Under 35 U.S.C. § 103**

Claims 1-3, 5, 8, 11, 12, 15, and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Odai (JP 2000-043243 A) in view of Kikuchi et al (US 6724999 B2) and Otsuki (US 2930696 B2). Claim 4 is rejected under 35 U.S.C. § 103 (a) as being unpatentable over Odai, Kikuchi, Otsuki and further in view of Kakumori (JP 10-081008A). Claims 6 and 7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Odai, Kikuchi, Otsuki, and further in view of Kawaguchi et al. (US 2003/0030712 A1). Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Odai, Kikuchi, Otsuki, and further in view of Kishi et al. (US 5623295 A). Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Odai, Kikuchi, Otsuki, and further in view of Sasaki et al. (US 2001/0038411 A1). Claims 13, 14, and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Odai in view of Otsuki. Applicant respectfully traverses all of these rejections.

As an initial matter, Applicant notes that claims 15, 16 and 18 have been canceled without prejudice or disclaimer and, therefore, the Examiner's rejections with respect to claims 15, 16 and 18 are now moot.

Further, without conceding to the merits of the Examiner's rejections, claim 1 has been amended, as set forth above. Amended claim 1 recites (among other things):

AMENDMENT UNDER 37 C.F.R. § 1.114(c)  
U.S. Application No.: 10/530,174

Attorney Docket No.: Q87222

...wherein the sheet feed roller or the idle roller comprises a conductive rod-shaped member having an insulating coating on a surface thereof;

wherein the sheet feed roller or the idle roller comprises stripped-off portions where the insulating coating is stripped off so as to expose the conductive rod-shaped member...

None of the cited references, nor any combination thereof, teaches or suggests the above features and, therefore, claim 1 would not have been obvious in view of the cited references for *at least* these reasons.

First, the grounds of rejection allege that a combination of Odai, Kikuchi and Otsuki teach or suggest all the features of claim 1. Applicant respectfully disagrees. In contrast to claim 1, Odai teaches a ground roller 12 which is comprised of a metal core 13 and conductive rubber 14 wound around the metal core 13 (*see* Odai, paragraph 0015). In further contrast to claim 1, Kikuchi teaches a pressing roller 3 which includes a metallic core 3a and an elastic member 3b formed around the metal core 3a (*see* Kikuchi, col. 3, line 66 - col. 4, lines 5). Finally, Otsuki discloses an upstream paper feed roller 25a comprising a plurality of freely rotating small rollers (*see* Otsuki, col.12, lines 32-33).

The grounds of rejection rely on the allegation that the method of manufacturing a device is not germane to the issue of patentability of the device itself (07/21/09 Office Action, page 9). However, neither Odai, Kikuchi, Otsuki, or any combination thereof teaches or suggests the claimed sheet feed roller or the idle roller having a structure in which the conductive rod-shaped member has an insulating coating and stripped-off portions where a part of the insulating coating

AMENDMENT UNDER 37 C.F.R. § 1.114(c)  
U.S. Application No.: 10/530,174

Attorney Docket No.: Q87222

is stripped off. Thus, Applicant respectfully submits that, not only the method of manufacturing the roller of claim 1, but also the structure of the roller of claim 1, is completely different from the rollers disclosed in Odai, Kikuchi and Otsuki.

For example, amended claim 1 plainly recites the features of wherein the sheet feed roller or the idle roller comprises stripped-off portions where the insulating coating is stripped off so as to expose the conductive rod-shaped member. These recitations constitute positive structural (as opposed to functional) limitations on the claimed printing apparatus (*see e.g.*, MPEP §2114). Further, these structural limitations of claim 1 are nowhere taught or suggested in Odai, Kikuchi and Otsuki. Therefore, Applicant respectfully submits that claim 1 is patentable over the cited references for *at least* these reasons.

Second, claim 1 has been amended to further recite:

...wherein the insulating coating is configured to apply a friction force between the sheet feed roller or the idle roller and the printing sheet;

wherein the friction force is substantially uniform in a longitudinal direction of the sheet feed roller or the idle roller..

During the telephone interview conducted with the Examiner on October 8, 2009, the Examiner indicated that, based on her initial impression<sup>1</sup>, the above features did not appear to be

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<sup>1</sup> The Examiner also indicated that it would be necessary for her to fully consider the above features as presented in a formal Amendment, and then perform additional prior art searching, to provide a final determination as to the patentability of the above features.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)  
U.S. Application No.: 10/530,174

Attorney Docket No.: Q87222

taught or suggested in the cited references. Accordingly, Applicant respectfully submits that claim 1 is patentable over the cited references for *at least* these additional independent reasons.

Third, amended claim 1 further recites:

...wherein the stripped-off portions are configured such that the conductive rod-shaped member contacts the printing sheet during operation of the printing apparatus.

During the telephone interview conducted with the Examiner on October 8, 2009, the Examiner also indicated that, based on her initial impression<sup>2</sup>, the above features did not appear to be taught or suggested in the cited references. Accordingly, Applicant respectfully submits that claim 1 is patentable over the cited references for *at least* these additional independent reasons.

Fourth, amended claim 1 also recites:

...wherein the stripped-off portions are configured to substantially eliminate static electricity of the printing sheet...

...wherein the stripped-off portions are configured to transfer static electricity of the printing sheet to the conductive rod-shaped member...

The cited references, and any combination thereof, also fail to teach or suggest the above features. Indeed, claim 1 plainly requires the structural features of stripped-off portions that are

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<sup>2</sup> The Examiner also indicated that it would be necessary for her to fully consider the above features as presented in a formal Amendment, and then perform additional prior art searching, to provide a final determination as to the patentability of the above features.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)  
U.S. Application No.: 10/530,174

Attorney Docket No.: Q87222

configured to substantially eliminate static electricity of the printing sheet. Claim 1 also requires the structural features of stripped-off portions that are configured to transfer static electricity of the printing sheet to the conductive rod-shaped member. That is, claim 1 recites a printing apparatus having a specific structural configuration that is nowhere taught or suggested in the cited references (*see e.g.*, MPEP §2114). Hence, Applicant respectfully submits that claim 1 is patentable over the cited references for *at least* these additional independent reasons.

In view of *at least* the above reasons, Applicant respectfully submits that claim 1 would not have been obvious in view of the cited references. Further, Applicant respectfully submits that the dependent claims 2-14 are patentable *at least* by virtue of their dependency.

Thus, Applicant respectfully requests that the Examiner withdraw all of these rejections.

### III. New Claims

By the present Amendment, new claims 19-20 have been added and are fully supported by the original specification. No new matter has been added.

Applicant respectfully submits that claim 20 is patentable over the cited references, *at least* by virtue of its dependency on claim 1.

Applicant also respectfully submits that claims 19-20 are patentable *at least* by virtue of the recitations set forth therein. For example, claim 19 recites a printing apparatus structured with both coated and uncoated portions. Applicant submits that none of the cited references, nor any combination thereof, teaches or suggests the claimed roller comprising a conductive rod-shaped member having both coated portions and uncoated portions, the uncoated portions being devoid of the insulating coating that is coated on a surface of the conductive rod-shaped member,

AMENDMENT UNDER 37 C.F.R. § 1.114(c)  
U.S. Application No.: 10/530,174

Attorney Docket No.: Q87222

as recited in claim 19. In contrast to claim 19, the cited Otsuki reference merely teaches that the upstream paper feed roller 25b comprises a plurality of freely rotating small rollers (column 12, lines 31-33) and does not teach coated and uncoated portions, the uncoated portions being devoid of the insulating coating that is coated elsewhere on the surface of the conductive rod-shaped member, as claimed.

The cited references also fail to teach or suggest the features of stripped-off portions that are configured such that an exposed surface of the conductive rod-shaped member is positioned proximate to the printing sheet during operation of the printing apparatus such that static electricity of the printing sheet is substantially eliminated, as recited in claim 20.

Therefore, the allowance of new claims 19-20 is respectfully requested.

#### IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)  
U.S. Application No.: 10/530,174

Attorney Docket No.: Q87222

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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